



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,549	09/22/2003	John H. Sohl III	36507-191465	5551
26694	7590	09/09/2005	EXAMINER	
VENABLE LLP			LAU, TUNG S	
P.O. BOX 34385			ART UNIT	
WASHINGTON, DC 20045-9998			PAPER NUMBER	
			2863	
DATE MAILED: 09/09/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/666,549

Applicant(s)

SOHL ET AL.

Examiner

Tung S. Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                        |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>See office action</u> . | 6) <input type="checkbox"/> Other: _____   |

## DETAILED ACTION

### Information Disclosure Statement

1. Information Disclosure Statement filed on 08/19/2005 is acknowledged by the examiner; A copy of a signed PTO-1449 attached with this office action.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

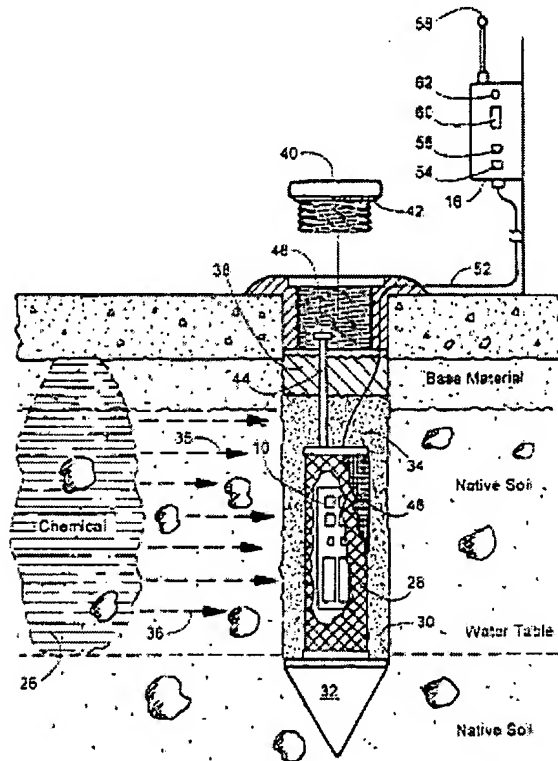
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-23 are rejected under 35 U.S.C. 102(a) as being anticipated by Adriany et al. (U.S. Patent 6,405,135).

Regarding claim 1:

Adriany discloses a method for end-to-end environmental data acquisition and delivery comprising the steps of a) acquiring a first set of environmental subsurface data in a first location via direct reading sensors (abstract), wherein said environmental subsurface comprises an area beneath at least one of a surface of earth, and/or a surface of a body of water (fig. 3), and wherein said direct reading sensors are placed in said environmental subsurface and said direct reading sensors are in direct contact with at least one of soils water, and/or vapor (Col. 2-3, Lines 29-33); b) geo-referencing said data (fig. 2); c) transmitting said data to a data analysis application server (Col. 2, Lines 20-19, fig. 3, unit

58); and d) analyzing said data to obtain information about said data; and using  
said information to select a next location (Col.2 , Lines 20-41).



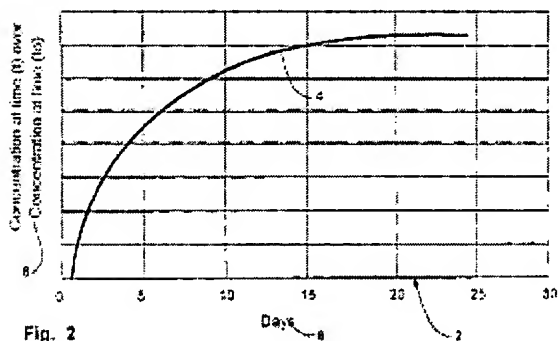
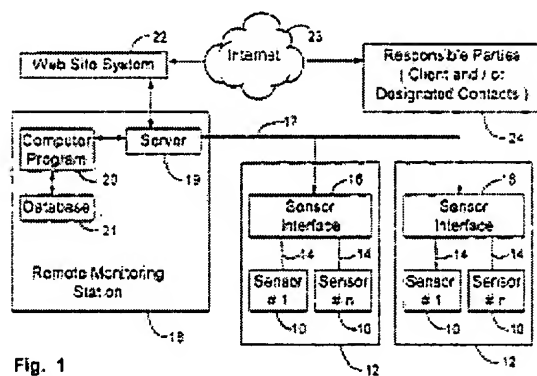
**Fig. 3**

Regarding claim 21:

Adriany discloses a method for end-to-end environmental data acquisition and delivery comprising the steps of: a) acquiring environmental subsurface data at a location via direct reading sensors (abstract), wherein said environmental subsurface comprises an area beneath at least one of a surface of earth and/or a surface of a body of water (abstract, Col. 2-3, Lines 29-65, fig. 3); b) geo-referencing said data (fig. 2) in at least three dimensions (Col. 5, Lines 20-67), wherein said geo-referencing comprises associating said environmental

Art Unit: 2863

subsurface data with said location (Col. 2, Lines 20-65) ); and c) transmitting said data to a data analysis application server adapted to analyze said data to obtain information about said data (fig. 3, unit 58, Col. 3, Lines 19-64).



Regarding claim 23:

Adriany discloses a method for environmental subsurface data acquisition and analysis comprising: receiving environmental subsurface data acquired at a location via direct reading sensors (abstract), wherein said environmental subsurface comprises an area beneath at least one of a surface of earth, and/or a surface of a body of water (fig. 3), and wherein said direct reading sensors are placed in said environmental subsurface and said direct reading sensors are in direct contact with at least one of soil, water and/or vapor (fig. 3); receiving said location (Col. 2, Lines 20-65); geo referencing said data by said location (Col. 2,

Lines 20-65) at least three dimension (Col. 5, Lines 20-65); and analyzing said data to obtain information (fig. 2).

Regarding claim 2, Adriany discloses one or more data parameter (fig. 1);

Regarding claim 3, Adriany discloses environmental subsurface data relates to chemical and geological attributes of the subsurface (abstract); Regarding claim

4, Adriany discloses direct sensing technologies (fig. 3); Regarding claim 5,

Adriany discloses geo-referencing said data to a specific point on the earth's

surface (fig. 3, Col. 2, Lines 20-55 ); Regarding claims 6, 8, Adriany discloses

two dimensional with time (Col. 5, Lines 20-60); Regarding claim 7, Adriany

discloses a geo-reference in three dimensional (Col. 5, Lines 20-60); Regarding

claim 11, Adriany discloses using algorithm to calculate information (Col. 5, Lines

20-55); Regarding claim 12, Adriany discloses refining raw data into processed

data (fig. 3, 2); Regarding claim 13, Adriany discloses display using 'dashboard'

type display (fig. 1, unit 18) and field device (fig. 3); Regarding claim 18, Adriany

discloses performing determining (abstract); Regarding claim 20, Adriany

determining relative quantity data of depth (fig. 2), drift calibration (fig. 2);

Regarding claim 10, Adriany discloses application service provider (fig. 1, unit

22); Regarding claim 22, Adriany discloses receiving information from data

analysis server (fig. 1, unit 18), Regarding claim 9, Adriany discloses

communication link (fig. 1, unit 23); Regarding claim 16, Adriany discloses

transmitting over a network (fig. 1, unit 23), Regarding claim 17, Adriany

discloses transmitting over a wireless network (fig. 3, unit 58 );

Regarding claim 19, Adriany discloses transmitting said information including completed data analytics via the Internet back to source location for decision-making and process changes (fig. 1, unit 23, 18) and transmitting said information wirelessly to a mobile device to facilitate access via internet protocols to said information analyzed from said sensor outputs (fig. 1, unit 23, fig. 3, unit 58), Regarding claim 14, Adriany discloses posting information for access by authorized users (fig. 1, unit 23); Regarding claim 15, Adriany discloses posting on a secure internet website (fig. 1, unit 22, 23).

### ***Response to Arguments***

3. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection. However, applicant's arguments filed 08/19/2005 have been fully considered but they are not persuasive.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory

Art Unit: 2863

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL



**MICHAEL NGHIEM**  
PRIMARY EXAMINER